

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

RECEIVED
CENTRAL FAX CENTER

DEC 10 2007

Listing of Claims:

Claim 1 (currently amended): ~~Device~~ A device for needle-free injection of a medium into the tissue of a human or an animal, wherein comprising a needle-free pre-injection device (~~1, 22, 24, 33, 46~~) for production of a high-pressure jet of a pre-injection medium for producing an injection channel by means of a high pressure and a small volume, and ~~by~~ a main injection device (~~17, 21, 23, 34, 47~~) for introduction of the medium to be injected, with a great volume and a low pressure in comparison with the volume and pressure of the pre-injection device (~~1, 22, 24, 33, 46~~).

Claim 2 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the pre-injection device (~~1, 22, 24~~) has a first chamber (~~4~~) for accommodating a pre-injection medium, and the main injection device (~~17, 21, 23~~) has a second chamber (~~19, 27~~) for accommodating a medium to be injected, ~~that~~ wherein a nozzle (~~2, 32~~) intended to be set onto the skin is connected with the chamber (~~4~~) of the pre-injection device (~~1, 22, 24~~) and

with the outlet of the main injection device ~~(17, 21, 23)~~ by way of a kick-back valve ~~(5)~~, and ~~that~~ wherein a pressure-production device ~~(14)~~ that is connected with the chamber ~~(4)~~ of the pre-injection device ~~(1, 22, 24)~~ is configured to produce a high-pressure jet from the nozzle ~~(2, 32)~~ that penetrates the tissue, whereby the chamber ~~(4)~~ of the pre-injection device ~~(1, 22, 24)~~ has a volume sized exclusively for producing an injection channel in the tissue, and the chamber ~~(19, 27)~~ of the main injection device ~~(17, 21, 23)~~ has a volume intended for the medium to be injected.

Claim 3 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the chamber ~~(19)~~ of the main injection device ~~(17)~~ has a piston ~~(18)~~ that can be moved by hand.

Claim 4 (currently amended): ~~Device~~ A device for needle-free production of an injection channel in the tissue of a human or an animal, for introduction of a medium to be injected into the tissue, wherein a pre-injection device ~~(1, 22, 24)~~ is provided ahead of a main injection device ~~(17, 21, 23)~~ that contains the medium to be injected, ~~that~~ wherein a chamber ~~(4)~~ of the pre-injection device provided for accommodation of a pre-injection medium has a nozzle ~~(2)~~ intended to be set onto the

skin, and the pre-injection device has a pressure-production device ~~(14)~~ for producing a high-pressure jet of the pre-injection medium that exits from the nozzle ~~(2)~~, and ~~that~~ wherein the chamber ~~(4)~~ has a volume sized exclusively for producing the injection channel.

Claim 5 (currently amended): ~~Device~~ The device as recited in claim 4, wherein the pre-injection device ~~(1, 22, 24)~~ has a coupling device ~~(9)~~ for a connection with a main injection device ~~(17, 21, 23)~~ that contains the medium to be injected.

Claim 6 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the pressure-producing device ~~(14, 38, 51)~~ of the pre-injection device ~~(1, 33, 46)~~ has a pressure plate ~~(7)~~ biased by a spring force, or a biased pressure piece ~~(42, 55)~~.

Claim 7 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the ~~main injection~~ pre-injection device ~~(17)~~ has a channel ~~(8)~~ connected with the nozzle ~~(2)~~ of at one end and the pre-injection main injection device (1) at the other end.

Claim 8 (currently amended): ~~Device~~ The device as recited in claim 1, wherein a kick-back valve ~~(5)~~ is disposed within the channel ~~(8)~~.

Claim 9 (currently amended): ~~Device~~ The device as recited in claim 1, wherein a trigger ~~(11, 40, 57)~~ of the pre-injection device ~~(1)~~ holds a pressure plate ~~(7)~~ biased by a spring ~~(14)~~ or a pressure piece ~~(42, 55)~~ in its base position.

Claim 10 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the trigger ~~(11)~~ is connected with the chamber ~~(4)~~ of the pre-injection device ~~(1)~~ and is configured to release the pressure plate ~~(7)~~ above a planned pressure.

Claim 11 (currently amended): ~~Device~~ The device as recited in claim 1, wherein a membrane ~~(12)~~ is part of the piston ~~(6)~~, with which the chamber ~~(4)~~ of the injection medium is connected, and this membrane ~~(12)~~ activates the trigger ~~(11)~~ by way of a pusher ~~(13)~~.

Claim 12 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the channel ~~(8)~~ has a connection ~~(3)~~ with the chamber ~~(4)~~ of the injection medium, and ~~that~~ wherein the

kick-back valve (5) is disposed between the connection (3) and the coupling device (9).

Claim 13 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the chamber (8) has a piston (6) that rests against the pressure plate (7) and can be displaced in length, and that wherein the channel (8) is guided through the piston (6) and the pressure plate (7).

Claim 14 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the main injection device (17, 21, 23, 34, 47) and the pre-injection device (1, 22, 24, 33, 46) have a common nozzle (2, 32, 36, 49).

Claim 15 (currently amended): ~~Device~~ The device as recited in claim 1, wherein a trigger (11) of the pre-injection device (1, 22, 24) can be indirectly activated by the pressure produced by the main injection device (17, 21, 23).

Claim 16 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the pre-injection device (33, 46) and the main injection device (34, 47) have a common chamber (35, 48) for accommodating the medium to be injected, and a common

pressure-production device ~~(38, 51)~~, and ~~that~~ wherein the pressure-production device ~~(38, 51)~~ has means for reducing the size of a first, slight part of the chamber ~~(35, 48)~~ in a first step, by a small volume, at a great pressure, and, in a second step, by a great volume, at a low pressure.

Claim 17 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the common pressure-production device ~~(38)~~ has a single spring ~~(41)~~ and damping means ~~(43)~~ for damping the movement of a piston ~~(37)~~ that delimits the common chamber ~~(35)~~.

Claim 18 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the common pressure-production device ~~(51)~~ has two springs ~~(53, 54)~~ having different spring stiffness values and spring paths, whereby a first spring element ~~(53)~~ for moving the piston ~~(50)~~ in the first step has a high spring stiffness and a short spring path, while a second spring ~~(54)~~ for moving the piston ~~(50)~~ has a low spring stiffness and a long spring path.

Claim 19 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the pre-injection medium is a physiologically non-problematic liquid.

Claim 20 (currently amended): ~~Device~~ The device as recited in claim 1, wherein the pre-injection medium is the medium to be injected or an anesthetic.

Claim 21 (canceled).

Claim 22 (currently amended): ~~Method~~ The method as recited in claim ~~21~~ 25, wherein the introduction of the medium to be injected directly follows the production of the injection channel, and ~~that~~ wherein a minimum pressure is applied during introduction of the medium to be injected, to maintain the injection channel.

Claim 23 (currently amended): ~~Method~~ The method as recited in claim ~~21~~ 25, wherein the production of the injection channel takes place at a high pressure and a low volume, and ~~that~~ wherein the introduction of the medium to be injected takes place at a high volume and a low pressure.

Claim 24 (currently amended): ~~Method~~ The method as recited in claim ~~21~~ 25, wherein the pressure for producing the injection channel is applied by means of spring force, and ~~that~~ wherein the

pressure for injection of the medium to be injected is applied manually.

Claim 25 (new): A method for needle-free injection of a medium into human or animal tissue comprising the steps of:

(a) providing a device comprising a needle-free pre-injection device for production of a high-pressure jet of a pre-injection medium for producing an injection channel with a high pressure and a small volume and a main injection device for introduction of the medium to be injected with a great volume and a low pressure in comparison with the volume and pressure of the pre-injection device;

(b) first producing the high-pressure jet of the pre-injection medium via the needle-free pre-injection device;

(c) producing the injection channel with the high-pressure jet; and

(d) subsequently introducing the medium to be injected into the tissue through the injection channel.